

LAB 7

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LAB: CSE4002 Mobile Application Development LAB

1.Design an app to schedule three events. Add time picker to the App, choose time and when SET button is clicked, set the time in the respective event Text.

MainActivity.Java

```
package com.example.lab7_19bce7230;

import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.view.View;
import android.widget.EditText;
import android.widget.TimePicker;
import android.os.Bundle;

public class MainActivity extends AppCompatActivity {

    TimePicker timePicker;

    EditText event1, event2, event3;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
```

```
setContentView(R.layout.activity_main);

timePicker = (TimePicker) findViewById(R.id.timePicker);

event1 = (EditText) findViewById(R.id.eventOne);

event2 = (EditText) findViewById(R.id.eventTwo);

event3 = (EditText) findViewById(R.id.eventThree);

}
```

```
private int hour1(int hour) {

    if (hour > 12) {

        return hour - 12;

    }

    return hour;

}
```

```
private String displayap(int hour) {

    if (hour > 12) {

        return "PM";

    }

    return "AM";

}
```

```
private String appendZero(int num) {

    if (num < 10) {

        return "0" + num;

    }

}
```

```

    }

    return String.valueOf(num);
}

public void setEvent1(View view) {

    String time = appendZero(hour1(this.timePicker.getCurrentHour())) + ":"
+ appendZero(this.timePicker.getCurrentMinute()) + " "

        + displayap(this.timePicker.getCurrentHour());

    event1.setText(time);
}

public void setEvent2(View view) {

    String time = appendZero(hour1(this.timePicker.getCurrentHour())) + ":"
+ appendZero(this.timePicker.getCurrentMinute()) + " "

        + displayap(this.timePicker.getCurrentHour());

    event2.setText(time);
}

public void setEvent3(View view) {

    String time = appendZero(hour1(this.timePicker.getCurrentHour())) + ":"
+ appendZero(this.timePicker.getCurrentMinute()) + " "

        + displayap(this.timePicker.getCurrentHour());

    event3.setText(time);
}

```

```

    }

    public void onSubmit(View view) {

        Intent intent = new Intent(getApplicationContext(),
MainActivity2.class);

        intent.putExtra("eventOne", this.event1.getText().toString());

        intent.putExtra("eventTwo", this.event2.getText().toString());

        intent.putExtra("eventThree", this.event3.getText().toString());

        startActivity(intent);

        this.event1.setText("");

        this.event2.setText("");

        this.event3.setText("");

    }
}

```

XML Code -

```

<?xml version="1.0" encoding="utf-8"?>

<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"

    xmlns:app="http://schemas.android.com/apk/res-auto"

    xmlns:tools="http://schemas.android.com/tools"

    android:layout_width="match_parent"

    android:layout_height="match_parent"

    android:orientation="vertical"

    android:layout_gravity="center_horizontal"

    android:padding="20dp"

```

```
tools:context=".MainActivity">
```

```
<TimePicker  
  
    android:id="@+id/timePicker"  
  
    android:layout_width="wrap_content"  
  
    android:layout_height="wrap_content"  
  
    android:headerBackground="#e75480"  
  
    android:numbersBackgroundColor="#E89FB7"  
  
    android:numbersSelectorColor="#E91E63" />
```

```
<LinearLayout  
  
    android:layout_width="match_parent"  
  
    android:layout_height="wrap_content"  
  
    android:orientation="horizontal"  
  
    android:layout_marginTop="20dp">
```

```
<TextView  
  
    android:layout_width="wrap_content"  
  
    android:layout_height="wrap_content"  
  
    android:text="Event 1  "  
  
    android:layout_weight="1"/>
```

```
<EditText  
  
    android:id="@+id/eventOne"  
  
    android:layout_width="200dp"
```

```

        android:layout_height="wrap_content"

        android:layout_weight="1" />

<Button

    android:id="@+id/Button"

    android:layout_width="wrap_content"

    android:layout_height="wrap_content"

    android:layout_weight="1"

    android:text="SET"

    android:onClick="setEvent1"

    android:backgroundTint="#E91E63" />

</LinearLayout>

<LinearLayout

    android:layout_width="match_parent"

    android:layout_height="wrap_content"

    android:orientation="horizontal"

    android:layout_marginTop="20dp">

    <TextView

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:text="Event 2  "

        android:layout_weight="1"/>

    <EditText

```

```
        android:id="@+id/eventTwo"

        android:layout_width="200dp"

        android:layout_height="wrap_content"

        android:layout_weight="1"

    />

    <Button

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:layout_weight="1"

        android:text="SET"

        android:backgroundTint="#E91E63"

        android:onClick="setEvent2"/>

</LinearLayout>
```

```
<LinearLayout

    android:layout_width="match_parent"

    android:layout_height="wrap_content"

    android:orientation="horizontal"

    android:layout_marginTop="20dp">

    <TextView

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:text="Event 3  "
```

```
        android:layout_weight="1"/>
```

```
<EditText
```

```
    android:id="@+id/eventThree"
```

```
    android:layout_width="200dp"
```

```
    android:layout_height="wrap_content"
```

```
    android:layout_weight="1"
```

```
<Button
```

```
    android:layout_width="wrap_content"
```

```
    android:layout_height="wrap_content"
```

```
    android:layout_weight="1"
```

```
    android:text="SET"
```

```
    android:backgroundTint="#E91E63"
```

```
    android:onClick="setEvent3"/>
```

```
</LinearLayout>
```

```
<Button
```

```
    android:layout_width="match_parent"
```

```
    android:layout_height="75dp"
```

```
    android:layout_marginTop="50dp"
```

```
    android:backgroundTint="#E91E63"
```

```
    android:onClick="onSubmit"
```

```
    android:text="SUBMIT"
```

```
    android:textSize="20dp" />
```



```
</LinearLayout>
```

MainActivity2.java

```
package com.example.lab7_19bce7230;
```

```
import androidx.appcompat.app.AppCompatActivity;
```

```
import android.content.Intent;
```

```
import android.os.Bundle;
```

```
import android.widget.TextView;
```

```
import android.os.Bundle;
```

```
public class MainActivity2 extends AppCompatActivity {
```

```
    TextView result;
```

```
    @Override
```

```
    protected void onCreate(Bundle savedInstanceState) {
```

```
        super.onCreate(savedInstanceState);
```

```
        setContentView(R.layout.activity_main2);
```

```
        result = (TextView) findViewById(R.id.result);
```

```
        Intent intent = getIntent();
```

```
        String eventOne = intent.getStringExtra("eventOne");
```

```
        String eventTwo = intent.getStringExtra("eventTwo");
```

```
        String eventThree = intent.getStringExtra("eventThree");
```

```

        if (eventOne.isEmpty()) {

            eventOne = "Not Available";

        }

        if (eventTwo.isEmpty()) {

            eventTwo = "Not Available";

        }

        if (eventThree.isEmpty()) {

            eventThree = "Not Available";

        }

        String resultString = "";

        resultString += "Event 1 : " + eventOne + "\n\n";
        resultString += "Event 2 : " + eventTwo + "\n\n";
        resultString += "Event 3 : " + eventThree + "\n\n";

        result.setText(resultString);

    }
}

```

XML2 Code -

```
<?xml version="1.0" encoding="utf-8"?>
```

```
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"

    xmlns:app="http://schemas.android.com/apk/res-auto"

    xmlns:tools="http://schemas.android.com/tools"

    android:layout_width="match_parent"

    android:layout_height="match_parent"

    android:orientation="vertical"

    android:padding="20dp"

    tools:context=".MainActivity2">

    <TextView

        android:id="@+id/result"

        android:layout_width="match_parent"

        android:layout_height="wrap_content"

        android:layout_marginTop="10dp"

        android:layout_weight="1"

        android:text="Time Display"

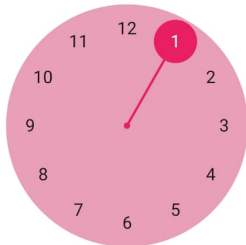
        android:textColor="#E91E63"

        android:textSize="22sp" />

</LinearLayout>
```

OUTPUT -

1:40 AM
PM



Event 1 SET

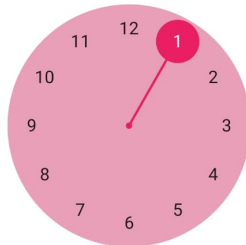
Event 2 SET

Event 3 SET

SUBMIT



1:40 AM
PM



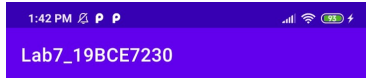
Event 1 2:10 PM SET

Event 2 3:00 AM SET

Event 3 1:45 AM SET

SUBMIT





Event 1 : 2:10 PM

Event 2 : 3:00 AM

Event 3 : 1:45 AM



2. Design an App for a Dialog based TimePicker. Whenever SET button is clicked a TimePicker should popup. Choose the time and set the Time in the EditText and once selected the picker should disappear.

MainActivity.Java

```
package com.example.lab7_19bce7230_2;
```

```
import androidx.appcompat.app.AppCompatActivity;
```

```
import android.os.Bundle;
```

```
import android.widget.Button;
```

```
import android.view.View;
```

```
import android.widget.EditText;

import android.widget.TimePicker;

import android.app.TimePickerDialog;

import java.util.Calendar;


public class MainActivity extends AppCompatActivity {

    EditText t1, t2, t3;

    Button b1, b2, b3;

    @Override

    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_main);


        TimePicker ti;

        int Time1[] = new int[2];

        int Time2[] = new int[2];

        int Time3[] = new int[2];


        b1 = findViewById(R.id.B1);

        b2 = findViewById(R.id.B2);

        b3 = findViewById(R.id.B3);

        t1 = findViewById(R.id.EDIT1);

        t2 = findViewById(R.id.EDIT2);

        t3 = findViewById(R.id.EDIT3);
```

```

        b1.setOnClickListener(new View.OnClickListener() {

            @Override

            public void onClick(View v) {

                TI(Time1, t1);

            }

        });

        b2.setOnClickListener(new View.OnClickListener() {

            @Override

            public void onClick(View v) {

                TI(Time2, t2);

            }

        });

        b3.setOnClickListener(new View.OnClickListener() {

            @Override

            public void onClick(View v) {

                TI(Time3, t3);

            }

        });

    }

    private void TI ( int[] t, EditText e)

    {

        final Calendar c = Calendar.getInstance();

        t[0] = c.get(Calendar.HOUR_OF_DAY);

        t[1] = c.get(Calendar.MINUTE);

        TimePickerDialog timePickerDialog = new TimePickerDialog(this,

            new TimePickerDialog.OnTimeSetListener() {

```

```

        @Override

        public void onTimeSet(TimePicker view, int hourOfDay,
int minute) {

            e.setText(String.valueOf(hourOfDay + ":" + minute));

            t[0] = hourOfDay;

            t[1] = minute;

        }

        }, t[0], t[1], true);

        timePickerDialog.show();

    }

}

```

XML Code -

```

<?xml version="1.0" encoding="utf-8"?>

<androidx.constraintlayout.widget.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"

    xmlns:app="http://schemas.android.com/apk/res-auto"

    xmlns:tools="http://schemas.android.com/tools"

    android:layout_width="match_parent"

    android:layout_height="match_parent"

    tools:context=".MainActivity">

    <TextView android:id="@+id/T1"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:layout_marginStart="11dp"

        android:layout_marginEnd="21dp"

```



```
android:layout_marginBottom="8dp"

android:text="Event-1"

app:layout_constraintBottom_toBottomOf="@+id/EDIT1"
app:layout_constraintEnd_toStartOf="@+id/EDIT1"
app:layout_constraintHorizontal_chainStyle="packed"
app:layout_constraintStart_toStartOf="parent" />
```

```
<TextView android:id="@+id/T2"

    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="11dp"
    android:layout_marginEnd="22dp"
    android:layout_marginBottom="10dp"
    android:text="Event-2"

    app:layout_constraintBottom_toBottomOf="@+id/EDIT2"
    app:layout_constraintEnd_toStartOf="@+id/EDIT2"
    app:layout_constraintHorizontal_chainStyle="packed"
    app:layout_constraintStart_toStartOf="parent" />
```

```
<TextView
```

```
    android:id="@+id/T3"

    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="10dp"
    android:layout_marginEnd="24dp"
```

```

        android:text="Event-3"

        app:layout_constraintBaseline_toBaselineOf="@+id/EDIT3"

        app:layout_constraintEnd_toStartOf="@+id/EDIT3"

        app:layout_constraintHorizontal_chainStyle="packed"

        app:layout_constraintStart_toStartOf="parent" />

<EditText android:id="@+id/EDIT1"

    android:layout_width="wrap_content"

    android:layout_height="wrap_content"

    android:layout_marginEnd="5dp"

    android:layout_marginBottom="50dp"

    android:ems="10"

    android:inputType="textPersonName"

    android:minHeight="48dp"

    app:layout_constraintBottom_toTopOf="@+id/B2"

    app:layout_constraintEnd_toStartOf="@+id/B1"

    app:layout_constraintStart_toEndOf="@+id/T1"

    tools:ignore="SpeakableTextPresentCheck" />

<EditText android:id="@+id/EDIT2"

    android:layout_width="wrap_content"

    android:layout_height="wrap_content"

    android:layout_marginTop="5dp"

    android:layout_marginEnd="4dp"

    android:ems="10"

    android:inputType="textPersonName"

```

```

        android:minHeight="48dp"

        app:layout_constraintEnd_toStartOf="@+id/B2"

        app:layout_constraintStart_toEndOf="@+id/T2"

        app:layout_constraintTop_toTopOf="@+id/B2"

        tools:ignore="SpeakableTextPresentCheck" />

<EditText android:id="@+id/EDIT3"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:layout_marginTop="8dp"

        android:layout_marginEnd="1dp"

        android:ems="10"

        android:inputType="textPersonName"

        android:minHeight="48dp"

        app:layout_constraintEnd_toStartOf="@+id/B3"

        app:layout_constraintStart_toEndOf="@+id/T3"

        app:layout_constraintTop_toTopOf="@+id/B3"

        tools:ignore="SpeakableTextPresentCheck" />

<Button android:id="@+id/B1"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:text="SET"

        app:layout_constraintBaseline_toBaselineOf="@+id/EDIT1"

        app:layout_constraintEnd_toEndOf="parent"

        app:layout_constraintStart_toEndOf="@+id/EDIT1" />

```

```
<Button android:id="@+id/B2"

    android:layout_width="wrap_content"

    android:layout_height="wrap_content"

    android:layout_marginTop="203dp"

    android:text="SET"

    app:layout_constraintEnd_toEndOf="parent"

    app:layout_constraintStart_toEndOf="@+id/EDIT2"

    app:layout_constraintTop_toTopOf="parent" />


<Button android:id="@+id/B3"

    android:layout_width="wrap_content"

    android:layout_height="wrap_content"

    android:layout_marginTop="55dp"

    android:text="SET"

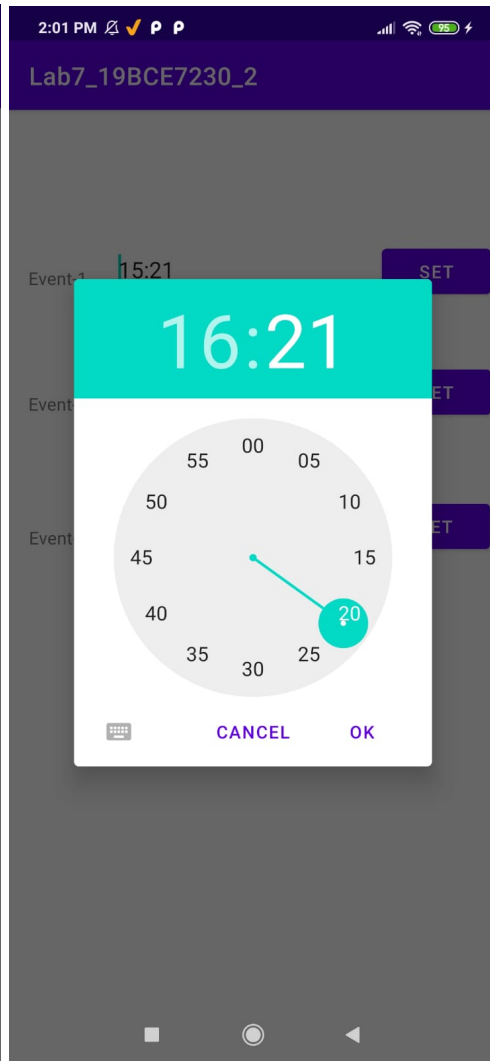
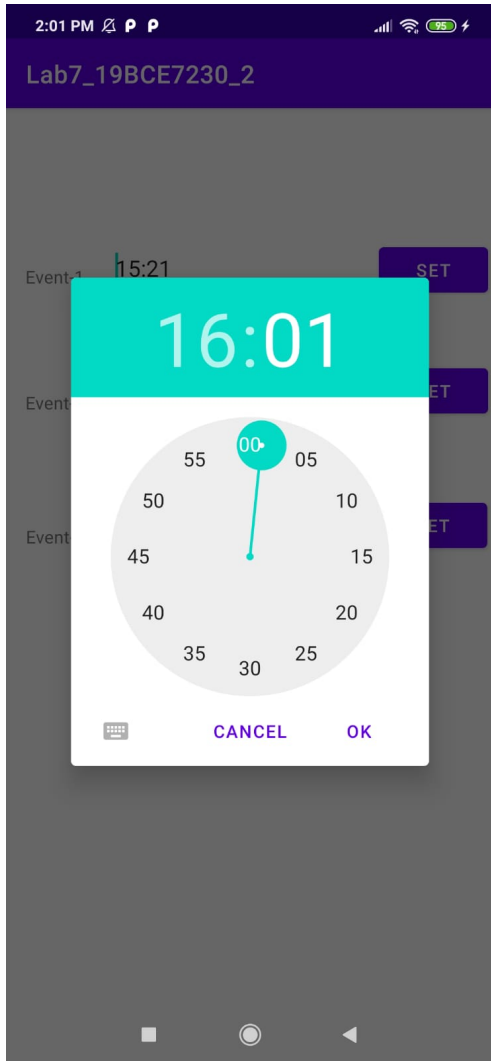
    app:layout_constraintEnd_toEndOf="parent"

    app:layout_constraintStart_toEndOf="@+id/EDIT3"

    app:layout_constraintTop_toBottomOf="@+id/EDIT2" />


</androidx.constraintlayout.widget.ConstraintLayout>
```

OUTPUT -



Event-1

16:21

SET

Event-2

SET

Event-3

SET